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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,404	03/16/2004	Ira M. Blevis	154/03364	3708
44909	7590	05/15/2006	EXAMINER	
WOLF, BLOCK, SCHORR & SOLIS-COHEN LLP 250 PARK AVENUE NEW YORK, NY 10177			ROSENBERGER, FREDERICK F	
			ART UNIT	PAPER NUMBER
			2884	

DATE MAILED: 05/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/802,404

Applicant(s)

BLEVIS ET AL.

Examiner

Frederick F. Rosenberger

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-28 is/are allowed.
- 6) ☒ Claim(s) 29-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's reply, filed 2 March 2006, has been received and entered. Accordingly, changes have been made to the abstract. Claims 1, 24, and 29 have been amended. No claims have been cancelled. No new claims have been added. Thus, claims 1-32 are currently pending in this application.
2. Applicant's amendment of the abstract has successfully overcome the objections to the specification, as detailed in paragraph 1 of the previous Office action.
3. Applicant's amendment of the claims has successfully overcome the objection to claims 1 and 29, as detailed in paragraph 2 of the previous Office action.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 29 and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Gagnon et al. (US Patent # 6,147,353).

With regards to claim 29, Gagnon et al. disclose a gamma camera system (Figure 4) comprising:

A pair of gamma camera heads **200, 202** connected to form an angle (column 6, lines 7-10) and adapted to view a reconstruction volume **208** from a plurality of directions (column 7, lines 14-20) having an axis perpendicular to a plane containing the right angle; and,

A controller **78** (Figure 1; column 6, lines 3-6) adapted to reconstruct a three dimensional image of radiation sources in the reconstruction volume from data acquired by the camera heads as they rotate about the axis;

Wherein each of the pair of gamma camera heads **200, 202** has a dimension in the plane containing the angle smaller than a largest dimension of the reconstruction volume perpendicular to the axis (Figure 4; column 6, lines 38-40).

With regards to claim 30, Gagnon et al. disclose that the angle between the detector heads is a right angle (column 6, lines 7-10; Figure 4)

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gagnon et al., as applied to claim 29 above.

With regards to claim 31, Gagnon et al. disclose all the limitations of parent claim 29, as discussed above. However, Gagnon et al. are silent with regards to the dimension of the gamma camera heads in relation to the largest dimension of the reconstruction volume. It would have been obvious for a person having ordinary skill in the art at the time the invention was made to choose a gamma camera head dimension between 50% and 75% of the largest dimension, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

9. Claims 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guerard et al., (US Patent Application 5,752,916).

With regards to claim 29, Guerard et al. disclose a gamma camera system (Figures 1 and 3-5) comprising:

A pair of gamma camera heads **9, 10** (Figure 1) with detector surfaces **25** (Figures 3-5) connected to arms to form an angle (Figure 4) between the detector surfaces and adapted to view a reconstruction volume, in the form of the patient's body **16** from a plurality of directions having an axis perpendicular to a plane containing the angle (Figure 5) wherein each of the pair of gamma camera heads **9, 10** has a dimension in the plane containing the angle smaller than a largest dimension of the reconstruction volume perpendicular to the axis (column 4, lines 44-46; Figure 4).

Guerard et al. do not specifically disclose a controller for reconstructing the data acquired by the camera heads. However, Guerard et al. do imply the existence of such a controller, as evidenced by the disclosure in column 4, lines 5-13 and column 5, lines 30-47). Further it is well known in the art to include such a controller for the construction of images based on the gamma camera data (see, for example, Gagnon et al.). Thus, it would have been obvious for a person having ordinary skill in the art at the time the invention was made to include a controller for processing the gamma camera data, since the existence of such a controller is implied by Guerard et al. and the use of a controller for image reconstruction is well known in the art.

With regards to claim 30, Guerard et al. disclose a gamma camera system according to claim 29 wherein the angle is substantially equal to a right angle (column 5, lines 30-33; Figures 4 and 5).

With regards to claim 31, Guerard et al. are silent with regards to the dimension of the gamma camera heads in relation to the largest dimension of the reconstruction

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volume. It would have been obvious for a person having ordinary skill in the art at the time the invention was made to choose a gamma camera head dimension between 50% and 75% of the largest dimension, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

With regards to claim 32, Guerard et al. do not specifically disclose that the gamma camera heads are rigidly connected at the angle, although Guerard et al. do disclose that the heads retain their perpendicular orientation throughout the scan trajectory (column 5, lines 30-47). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make a rigid connection between the gamma camera heads, since it has been held that making separate structures into a single piece without producing any new and unexpected results involves only routine skill in the art. In re Larson, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965).

### ***Response to Arguments***

10. Applicant's arguments, see page 9 through top of page 10, filed 2 March 2006, with respect to the rejection(s) of claim(s) 29-32 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn.

However, upon further consideration, a new ground(s) of rejection is made in view of Guerard et al. and Gagnon et al. individually. Both references teach gamma camera detector heads smaller than the reconstruction volume, as detailed above.

***Allowable Subject Matter***

11. Claims 1-28 are allowed.

12. The following is a statement of reasons for the indication of allowable subject matter: Independent claims 1 and 24 would be allowable over the prior art of record for reasons of record in the response filed 2 March 2006, especially pages 7 and 8. Claims 2-23 and 25-28 would be allowable by virtue of their dependency on claims 1 and 24.

***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Koops et al. (US Patent # 6,927,395) disclose a gamma camera with a pair of gamma detection heads, wherein an arm and a pivot are provided for each detection head to allow rotation of the detection head with respect to the arm and the arm is not adapted for orbital motion. However, Koops et al. do not disclose the pair of gamma cameras mounted on a single arm at substantially a right angle.


14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frederick F. Rosenberger whose telephone number is 571-272-6107. The examiner can normally be reached on Monday-Friday 8:00 AM - 5:00 PM.



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**ALBERT J. GAGLIARDI**  
**PRIMARY EXAMINER**

Frederick F. Rosenberger  
Patent Examiner  
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